



**Gold Nanowires**

## **PRODUCT DATA SHEET**

### **Gold Nanowires**

#### **Description**

Gold nanowires are nanowire gold nanoparticles fabricated using special methods that offer high aspect ratios, excellent electrical and optical properties, high specific surface area and easy surface functionalisation. The size of gold nanowires is in the nanometer range, and the quantum domain-limited effect is significant. The material also has tunable electron transport properties, high reactivity, chemical catalytic activity and excellent biophilicity, which can be used to catalyse part of the chemical reaction and prepare catalytic nanowire sensors, and also by immobilizing biomolecules such as proteins and nucleic acids in order to construct highly specific loaded biomolecule nanowire sensors.

Abvigen can provide high-quality Gold nanowires of various particle sizes. The Gold nanowires products have uniform particle size and good dispersion performance, which can meet different personalized material needs such as customer research and development, testing, and production consumption.

For custom sizes, formulations or bulk quantities please contact our customer service department.

**Website:** [www.abvigen.com](http://www.abvigen.com) **Phone:** +1 929-202-3014 **Email:** [info@abvigenus.com](mailto:info@abvigenus.com)



## Characteristics

Concentration: 0.05 mg/ml

Length: 1000 nm - 20000 nm

Size: 5 ml or others

Surface: CTAB/ Citrate/ PEI/ PAH/ PAA/ PVP/ BSA/ SDS

Density: 1.15 g/ccm

Peak SPR Wave: 510 nm - 520 nm

Buffer: 18MEG DI Water or others

CV: <0.1%

Store: Storage at 4 °C

Cat No	Aspect Ratio	Peak SPR Wave (nm)	NWS /mL	Wt. conc (mg/ml)	SPR Molar Ext. (M-1cm-1)
AGNW-1K-750	13	510	6.02E+08	0.05	4.98E+07
AGNW-2K-750	27	510	2.97E+08	0.05	1.01E+08
AGNW-3K-750	40	510	1.97E+08	0.05	1.52E+08
AGNW-4K-750	53	510	1.48E+08	0.05	2.03E+08
AGNW-6K-750	80	510	9.83E+07	0.05	3.05E+08
AGNW-7.5K-750	100	510	7.86E+07	0.05	3.82E+08
AGNW-10K-750	133	510	5.89E+07	0.05	5.10E+08
AGNW-20K-1000	200	520	1.65E+07	0.05	1.81E+09

## Storage

This product should be stored at 4°C. **DO NOT FREEZE.**



## **Advantage**

Good conductivity

Unique optical properties

High aspect ratio

Good biocompatibility

Larger specific surface area

Good catalytic activity

## **Applications**

Magnetic energy storage device

Pressure sensor material

Metal conductive electrode

Biosensors

SERS substrate

Chemical catalysis

## **Ordering Information**

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